

Appl. No. 10/550,056
Amendment dated: November 5, 2008
Reply to OA of: June 5, 2008

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1 (currently amended). A method of providing a desired range of point-to-ground resistance to trays, comprising:

coating a conductive solution onto a polymer film to obtain a conductive sheet having an antistatic layer thereon;

~~cutting the conductive sheet to be formed into~~ forming a tray having cut surfaces with the conductive sheet; and

forming a conductive pathway on all or parts of the cut surfaces of the tray.

2 (currently amended). The method according to claim 1, wherein the conductive pathway is formed by coating a conductive solution to the cut surfaces of the tray having insulative properties.

3 (original). The method according to claim 2, wherein the coating of the conductive solution is performed by a heat curing process or a UV-curing process.

4 (previously presented). The method according to claim 2, wherein the conductive solution comprises 0.05-40 wt% of a conductive material, the conductive material being selected from the group consisting of a conductive polymer, conductive carbon, a metal, metal oxide, a surfactant, and mixtures thereof.

5 (original). The method according to claim 4, wherein the conductive polymer is selected from the group consisting of polypyrrole, polyaniline, polythiophene, derivatives thereof, and mixtures thereof.

Appl. No. 10/550,056
Amendment dated: November 5, 2008
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6(original). The method according to claim 5, wherein the derivative of the conductive polymer is selected from the group consisting of polythiophene having C₅-C₁₂ alkyl, 3,4-ethylenedioxy-substituted polythiophene, polyaniline having C₁-C₄ alkoxy, amino or sulfone, polypyrrole having C₅-C₁₂ alkyl, and mixtures thereof.

7(original). The method according to claim 4, wherein the conductive carbon comprises conductive carbon black, carbon fiber, or carbon nanotube.

8(original). The method according to claim 4, wherein the metal comprises silver or copper.

9(original). The method according to claim 4, wherein the metal oxide comprises doped indium oxide or tin oxide.

10(original). The method according to claim 4, wherein the surfactant comprises quaternary ammonium salts, ionic surfactants, non-ionic surfactants, or amine surfactants.

11(previously presented). The method according to claim 2, wherein the conductive solution is coated at a thickness of 0.05-5 μm to the cut surfaces of the tray.

12(original). The method according to claim 1, wherein the conductive pathway is formed by using an antistatic polymer or a metal clamp or a metal clip.

13(original). The method according to claim 1, wherein the conductive pathway is formed by attaching an antistatic and conductive tape to the cut surfaces of the tray.

Claims 14(canceled).

Appl. No. 10/550,056
Amendment dated: November 5, 2008
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15(currently amended). A tray having a desired range of point-to-ground resistance by forming a conductive pathway on all or parts of the cut surfaces of the tray ~~the method of claim 4.~~

16(new). The method according to claim 3, wherein the conductive solution comprises 0.05-40 wt% of a conductive material, the conductive material being selected from the group consisting of a conductive polymer, conductive carbon, a metal, metal oxide, a surfactant, and mixtures thereof.

17(new). The method according to claim 16, wherein the conductive polymer is selected from the group consisting of polypyrrole, polyaniline, polythiophene, derivatives thereof, and mixtures thereof.

18(new). The method according to claim 17, wherein the derivative of the conductive polymer is selected from the group consisting of polythiophene having C₅-C₁₂ alkyl, 3,4-ethylenedioxy-substituted polythiophene, polyaniline having C₁-C₄ alkoxy, amino or sulfone, polypyrrole having C₅-C₁₂ alkyl, and mixtures thereof.

19(new). The method according to claim 16, wherein the metal oxide comprises doped indium oxide or tin oxide.

20(new). The method according to claim 16, wherein the surfactant comprises quaternary ammonium salts, ionic surfactants, non-ionic surfactants, or amine surfactants.

21(new). The method according to claim 1, wherein the conductive pathway is formed by two or more methods selected from among any one of coating a conductive solution to the cut surfaces of the tray, attaching an antistatic and conductive tape to the cut surfaces of the tray, and using an antistatic polymer or a metal clamp or a metal clip.